UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO.   | FILING DATE                 | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-----------------------------|----------------------|---------------------|------------------|
| 10/519,441  | 11/04/2005                  | Stefano Fumagalli    | LSP-1010US          | 2411             |
| 24923<br>PAUL S MADA                                    | 7590 10/02/200<br><b>AN</b> |                      | EXAMINER            |                  |
|   | SMAN & SRIRAM, P            |                      | YOON, TAE H         |                  |
| 2603 AUGUSTA DRIVE, SUITE 700<br>HOUSTON, TX 77057-5662 |                             |                      | ART UNIT            | PAPER NUMBER     |
|   |                             |                      | 1796                |                  |
|   |                             |                      |                     |                  |
|   |                             |                      | MAIL DATE           | DELIVERY MODE    |
|   |                             |                      | 10/02/2008          | PAPER            |

## Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|  | Application No.   | Applicant(s)  |  |  |  |  |
|--|---|---|--|--|--|--|
| Office Action Comments   | 10/519,441  | FUMAGALLI ET AL.  |  |  |  |  |
| Office Action Summary  | Examiner  | Art Unit  |  |  |  |  |
|  | Tae H. Yoon   | 1796  |  |  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply   | ears on the cover sheet with the c  | orrespondence address   |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 16(a). In no event, however, may a reply be tim ill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONEI | Lely filed the mailing date of this communication. (35 U.S.C. § 133). |  |  |  |  |
| Status   |   |   |  |  |  |  |
| 1) Responsive to communication(s) filed on   |   |   |  |  |  |  |
|  | -·<br>action is non-final.  |   |  |  |  |  |
| 3) Since this application is in condition for allowan  | secution as to the merits is  |   |  |  |  |  |
| •  | closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.   |   |  |  |  |  |
|  | ,,,,,,,   |   |  |  |  |  |
| Disposition of Claims  |   |   |  |  |  |  |
| 4)⊠ Claim(s) <u>17-36</u> is/are pending in the application.   |   |   |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.   |   |   |  |  |  |  |
| 5) Claim(s) is/are allowed.  |   |   |  |  |  |  |
| 6)⊠ Claim(s) <u>17-36</u> is/are rejected.   |   |   |  |  |  |  |
| 7) Claim(s) is/are objected to.  | 7) Claim(s) is/are objected to.   |   |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or  | election requirement.   |   |  |  |  |  |
| Application Papers   |   |   |  |  |  |  |
| 9) The specification is objected to by the Examine   | r.  |   |  |  |  |  |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.   |   |   |  |  |  |  |
| Applicant may not request that any objection to the o  | drawing(s) be held in abeyance. See   | e 37 CFR 1.85(a).   |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |   |   |  |  |  |  |
| 11)☐ The oath or declaration is objected to by the Ex  | aminer. Note the attached Office  | Action or form PTO-152.   |  |  |  |  |
| Priority under 35 U.S.C. § 119   |   |   |  |  |  |  |
| 12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a)⊠ All b)□ Some * c)□ None of:   |   |   |  |  |  |  |
| 1.☐ Certified copies of the priority documents   | s have been received  |   |  |  |  |  |
| 2.☐ Certified copies of the priority documents   |   | on No   |  |  |  |  |
| 3. ☐ Copies of the certified copies of the prior   | • •   | <u></u>   |  |  |  |  |
| application from the International Bureau  | •   | a in this National Stage  |  |  |  |  |
|  | * See the attached detailed Office action for a list of the certified copies not received.  |   |  |  |  |  |
| Goo the attached actained emocracient for a lice.  | or the continue copies het receive  | <b>.</b>  |  |  |  |  |
|  |   |   |  |  |  |  |
| Attachment(s)  |   |   |  |  |  |  |
| 1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)  |   |   |  |  |  |  |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08)   | Paper No(s)/Mail Da 5) Notice of Informal P   |   |  |  |  |  |
| Paper No(s)/Mail Date <u>5/1/07</u> . 6) Other:  |   |   |  |  |  |  |
|  |   |   |  |  |  |  |

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 17-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 439 363 in view of Bundy et al (US 5,085,707) and Malhotra et al (US 5,897,961)

EP teaches a paper coating composition comprising a binder, pigment or filler and desizing agent at col. 8, lines 24-34 wherein ratios of components are also taught. Said ratios would yield 0.01-20 parts by weight of a binder, 0.02-1 parts by weight of desizing agent and 0.01-1 100 parts by weight of filler or pigment. Said desizing agent includes various derivatives of sulfosuccinic acid such as ethoxylated alcohol sulfosuccinate (Alkasurf SS-DA4-HE) which meet the instant substance inherently and salt of dioctylsulfosuccinate (col. 13, lines 54-59). Or, other fatty alcohol derivatives are taught at col. 14, lines 25-30, and thus use of a fatty alcohol in said ethoxylated alcohol sulfosuccinate (Alkasurf SS-DA4-HE) would be obvious modification

Acrylic binders are taught at col. 11. A coating thickness 0.2 to 20 microns taught at col. 8, lines 41-43 would meet the instant claims 29 and 30.

The instant invention further recites a dispersant, calcium stearate, moles of oxide in said ethoxylated alcohol sulfosuccinate, dioctylsulfosuccinate and pigment size of finer than 2 microns over EP.

Application/Control Number: 10/519,441

Art Unit: 1796

Bundy et al teach employing a dispersant to pigmented slurry at col. 4, lines 48-62 and pigment (kaolin) size of less than 2 microns at col. 3, lines 29-53. Bundy et al also teach employing calcium stearate in a coating composition at col. 6, lines 56 and 62

Page 3

Malhotra et al teach monoester sulfosuccinates and diester sulfosuccinates at col. 22, lines 17-18. Thus, use of an ester form such as dioctylsulfosuccinate in EP would be obvious modification of salt of dioctylsulfosuccinate since such esters are known as taught by Malhotra et al.

Thus, it would have been obvious to one skilled in the art at the time of invention to utilize art well known pigmented coating additives such as a dispersant and calcium stearate and pigment size of less than 2 microns of Bundy et al in EP since use of such in a paper coating composition is well known as taught by Bundy et al and since EP teaches a coating thickness of 0.2 micron which would require pigment/filler having a particle size of 0.2 micron or less in order to obtain a smooth coated surface, and further to employ monoester sulfosuccinates or diester sulfosuccinates such as dioctylsulfosuccinate of Malhotra et al in EP and Bundy et al thereof since EP teaches salt of dioctylsulfosuccinate and thus use of an ester form of sulfosuccinate would be expected to yield sme or similar results since EP teaches use of other ester form (ethoxylated alcohol sulfosuccinate) and since use of esters in a paper coating is well known as taught by Malhotra et al and the ethoxylated alcohol sulfosuccinate of EP would encompass various moles of oxide absent showing otherwise.

Art Unit: 1796

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tae H Yoon Primary Examiner Art Unit 1796

THY/September 27, 2008

/Tae H Yoon/